Questions about the Development of the Report

Why was this report written?
The decision to prepare a Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC) with three Working Group contributions and a Synthesis Report was taken by the member governments of the IPCC at their 28th Session in April 2008. IPCC Working Group I assesses the physical science basis of climate change. Working Group II assesses impacts, adaptation and vulnerability while Working Group III assesses the mitigation of climate change. The Synthesis Report draws on the assessments made by all three Working Groups.

How was the scope of the report decided?
An AR5 Scoping Meeting was held in July 2009 to develop the scope and outline of the AR5. This meeting involved climate change experts from all relevant disciplines and users of IPCC reports, including some government representatives. The resulting outlines for the three IPCC Working Group contributions to the AR5 were approved by the 31st Session of the IPCC in October 2009.

What is the objective of the report?
The objective of the contribution of IPCC Working Group I to the AR5 *Climate Change 2013: The Physical Science Basis* (WGI AR5) is to provide a comprehensive and robust assessment of the physical science basis of climate change. In order to achieve this, the report has 14 topical chapters and a number of Annexes including, for the first time in IPCC, a comprehensive Atlas of Global and Regional Climate Projections, plus supplementary material.

What is the scale of the report?
As an indication, the final draft of the WGI AR5, which was made available to governments on 7 June 2013 for a final round of comments, has a total of 2014 pages of draft text and 1250 scientific figures and graphs. Its component parts are a Summary for Policymakers, a Technical Summary, 14 chapters and a number of Annexes plus supplementary material. The Summary for Policymakers of this draft comprises 22 pages and 9 scientific graphs. The WGI contribution was reviewed by 1089 experts and 38 governments in a multi-stage process drawing a total of 54,677 comments. Over 9200 scientific publications, a large suite of observational datasets from all regions of the world and over 2 million gigabytes of numerical data from climate model simulations formed the basis of this assessment.

What is new in the report?
The WGI AR5 includes chapters on sea level change, on the carbon cycle and on climate phenomena such as monsoon and El Niño and their relevance for future regional climate change. There is an assessment of the science of clouds and aerosols and extended coverage of climate change projections by assessing both near-term and long-term projections. An innovative feature is the Atlas of Global and Regional Climate Projections (Annex I), which enhances accessibility for users and stakeholders. The data underlying the Atlas figures will be made available digitally.

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Who wrote the report?
Experts from around the world were involved in preparing the WGI AR5, bringing their expertise in the many different disciplines necessary to produce a comprehensive assessment of the physical science of climate change according to the approved chapter outlines. The WGI AR5 has 209 Lead Authors and 50 Review Editors who were elected in June 2010. More than 600 additional experts were invited by the Lead Authors of the report to be Contributing Authors, in order to provide additional specific knowledge or expertise in a given area.

How were the authors and review editors chosen?
In January 2010, governments and IPCC observer organisations were invited to nominate experts to work on the AR5. The WGI Bureau, which consists of the two WGI Co-Chairs and six WGI Vice-Chairs, who are experts elected by the Panel in September 2008 for their appropriate scientific and technical qualifications and experience, is responsible for the selection for the WGI AR5. The Coordinating Lead Authors, Lead Authors and Review Editors for each of the 14 chapters were selected from a total of 977 nominations for the WGI contribution. All nominations were reviewed and their scientific and technical expertise was assessed in relation to the approved chapter outlines for the WGI AR5. Where incomplete coverage of scientific expertise was identified, nominations were made by the WGI Bureau. In drawing up a final slate of Lead Authors and Review Editors, the WGI Bureau also considered regional and gender balance, as well as ensuring the involvement of experts who had not worked on IPCC assessments before. The slate for the WGI AR5 was finalised in June 2010.

What information does the report draw on?
The WGI AR5 authors assessed many thousands of sources of scientific and technical information and their quality in order to produce the best possible, comprehensive and robust assessment. Guidance on ensuring the quality of literature sources is provided by the agreed IPCC guidelines on the use of literature. Priority is given to peer-reviewed literature if available, and over 9200 publications are cited in the WGI report. In order to be included in the WGI AR5, sources had to be accepted for publication by 15 March 2013.

How was the report reviewed?
Multiple stages of review are an essential part of the IPCC process. Both expert reviewers and governments are invited at different stages to comment on the scientific and technical assessment and the overall balance of the drafts. The review process includes worldwide participation, with hundreds of experts reviewing the accuracy and completeness of the scientific assessment contained in the drafts. For the AR5, experts could register as reviewers through a process of self-declaration of expertise. The Review Editors ensure that all substantive comments received during the reviews are given appropriate consideration by the author teams and that controversial issues are presented in a balanced manner.

What process was followed for the development of the report?
The IPCC Panel has developed and agreed a set of Principles and Procedures for the preparation of its reports. These specify each step of the process from the scoping of the report, the nomination of authors, through multiple steps of drafting and review until final approval and acceptance. The WGI AR5 was prepared in accordance with these Principles and Procedures.

Does the IPCC conduct its own research?
No, the IPCC does not conduct its own research. It reviews and assesses the most recent scientific, technical, and socio-economic information produced worldwide relevant to the understanding of climate change.

Do IPCC reports offer policy solutions to governments?
IPCC reports are policy-relevant but not policy-prescriptive. It is the role of the IPCC to provide governments with a comprehensive assessment of the most up-to-date scientific technical, and socio-economic knowledge on issues related to climate change. Climate change projections assessed are based on a range of specific scenarios. From this assessment, policymakers obtain information on potential consequences from climate change depending on the scenario.